

Title

Understanding Experiences of and Rationales for Sharing Crack-smoking Equipment: A Qualitative Study with Persons Who Smoke Crack in Montréal

Authors

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Abstract

Background: Distribution of safer crack-smoking equipment has been implemented in a few Canadian cities to reduce potential health risks such as blood borne virus (BBV) transmission. Very few studies have aimed at understanding perspectives of persons who smoke crack (PWSC) concerning sharing crack-smoking material such as pipes, in settings where safer crack-smoking equipment is provided. This paper presents experiences of and rationales for sharing crack-smoking equipment in light of risks of BBV transmission identified by public health authorities, from the perspective of PWSC in Montréal.

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Methods: This qualitative study is based on analyses of BBV risk behaviours of persons who use cocaine. Semi-structured interviews were conducted with men and women who use cocaine; they were recruited in low-threshold community centres for persons who use drugs. Twenty-six of the 32 interviewees who used cocaine also smoked crack, and therefore constitute a subsample for the analyses. Interview transcripts were coded with an inductive approach and analyzed thematically from a symbolic interactionist perspective.

Results: Many participants demonstrated personal agency, having adopted strategies to minimise inhalation equipment sharing such as being firm in refusing to share, smoking alone, and keeping an extra pipe to hand out. Nonetheless, sharing seemed commonplace, and attributed mainly to both contextual and personal factors: social dynamics among smokers; economic reasons such as wanting to keep the accumulated crack resin; practical reasons such as lacking personal smoking equipment; being ashamed to purchase or acquire crack pipes; fatalism; poor personal agency; and ambivalence or scepticism towards BBV risks of transmission.

Conclusion: To reinforce harm reduction for persons who smoke crack, interventions aimed at reducing barriers to safer smoking practices should be developed at both structural and individual levels.

Key words: Persons who smoke crack, crack-smoking equipment sharing, crack inhalation, risk prevention, qualitative research

Introduction

Over the past three decades, crack use has grown significantly in North America (Inciardi, 1987; Bourgois, 1995; Jones, 1996; Agar, 2003). Introduced into Canada in the 1990s, a sharp increase was noted over the years, mostly among street-based opioid users and persons who inject drugs (PWID) (Millson et al., 1995; Millson et al., 1998; Public Health Agency of Canada, 2006; Fischer et al., 2006; Werb et al., 2010). For instance, in a cohort of PWID in British Columbia, crack use prevalence rose from 26% between 1996 and 1999 to 76% between 2006 and 2012 (Grebely et al., 2015). In Montréal, the proportion of PWID who reported smoking crack increased from 57% to 74% between 2003 and 2008 (Leclerc et al., 2015).

In recent years, crack-smoking equipment sharing has been identified as a potential independent risk factor for HIV and hepatitis C virus (HCV) infections (DeBeck et al., 2009; Fischer, Powis, Cruz, Rudzinski, & Rehm, 2008; Public Health Agency of Canada, 2009; Tortu et al., 2007; Scheinmann et al. 2007). However controversy prevails, as some researchers found no evidence of such risks (Bravo et al., 2012; Hermansteyne, Bangsberg, Hennessey, Weinbaum, & Hahn, 2012; Howe et al. 2005). Even if the risks are relatively low compared to those associated with injection paraphernalia sharing, HIV and HCV virus transmission could be facilitated by the presence of blood stemming from cuts, chapped or burned lips, and oral cavity injuries caused by the heat of burning crack, or by split, cracked and even bursting makeshift pipes often made of glass or metal (Faruque et al. 1996; Garrity, Leukefeld, Carlson, & Falck, 2007; Tortu, McMahon, Pouget, & Hamid, 2004; Ward, Pallearos, Green, & Day 2000).

In renewed efforts geared towards health promotion and harm reduction, a few Canadian cities, led by Vancouver in 2004 (Fischer et al., 2015), started distributing safer crack-smoking equipment at a minimal cost. "Inhalation kits" typically contain a break-safe glass or pyrex tube, a rubber mouthpiece, metal screens, a wooden stick and prevention messages. The kits are provided by harm reduction programmes dedicated to people who use drugs. Following these new public health measures, studies reported decreases in sharing practices and increases in individual interventions with PWSC (Bergen-Cico & Lapple, 2015; Leonard et al., 2008). However, research has also pointed to persisting high prevalence of crack-smoking equipment sharing, even in areas where safer crack-smoking equipment was available (Fischer et al., 2010; Fischer, Cruz, Bastos, & Tyndall, 2013; Ti et al., 2011; Ivsins, Roth, Nakamura, Benoit, & Fischer, 2011; Leonard et al., 2008; Malchy, Bungay, & Johnson, 2008; Roy & Arruda, 2015). For instance, in a Vancouver study, 50% of the participants reported sharing smoking equipment (Ti et al., 2011), as did 75% of individuals in a cohort study of street-involved youth (Cheng et al., 2015).

Only a few studies—mostly epidemiological—have looked at factors associated with crack-smoking equipment sharing in cities where safer crack-smoking kits are distributed. Factors identified included intensive drug use (Cheng et al., 2015), economic reasons (Duff et al., 2013; Ti et al., 2012; Ti et al., 2011), lack of immediate access to clean inhalation material (Cheng et al., 2015), sex work (Duff et al., 2013), as well as violence and police repression (Bungay, Johnson, Varcoe, & Boyd, 2010; Cheng et al., 2015; Johnson et al., 2008; Boyd, Joy, Johnson, & Moffat, 2008). Several mostly observation-based qualitative studies have documented processes and contexts involved in inhalation equipment sharing among PWSC. These studies highlight the economic aspects of sharing, such as wanting to keep the crack residue or resin for those who lack resources to buy enough drugs (Boyd et al., 2008; McNeil, Kerr, Lampkin, & Small, 2015; Handlovsky, Bungay, Johnson, & Phillips, 2013), as well the “culture of sharing” amongst crack users due in part to their social marginalization (Boyd et al., 2008; McNeil et al., 2015). To our knowledge, no study has sought to understand the perspectives of PWSC regarding the risks linked to inhalation equipment sharing and day-to-day management of those risks, in a setting where safer crack-smoking equipment is distributed through harm reduction programmes.

Understanding the experiences of crack-smoking equipment sharing is essential to inform proper health and social policies and interventions. Qualitative enquiries involving in-depth interviews are major sources of information that allow researchers to better grasp and explain contexts and rationales behind complex human behaviours from actors’ own perspectives (Miles, Huberman & Saldana, 2014). With social interactionism as the reference framework, this study aims to understand PWSCs’ experiences of and rationale for sharing crack-smoking equipment while taking into account their social environment.

Methods

Epistemological perspective

Symbolic interactionism is a sociological perspective that rests on three main premises: (1) human beings act toward things or their lived experience on the basis of the meanings that these have for them; (2) the meaning of things or life experiences are derived from, or arise out of, the social interactions that one has with others; (3) meanings are handled in, and modified through, an interpretive process used by a person in dealing with the things or life situations they encounter (Blumer, 1969). With this constructivist epistemology, we focussed on the experiences of PWSM and how, in light of their environment and life contexts, they adopt strategies and practices associated with sharing smoking equipment. More specifically, we looked at how participants perceive the risks involved in sharing crack-smoking equipment and how they reinterpret key public health messages.

Research design and questions

This paper presents a descriptive and interpretative qualitative study within an existing research initiative called the COSMO project (Roy et al., 2015), which includes both quantitative and qualitative studies on cocaine use and HIV and HCV risk behaviours. The aims of those analyses were to examine the experiences of cocaine users with respect to several drug-use related risk behaviours and the relationships between risk behaviours and mental health. More specifically, the current paper focuses on crack-smoking equipment sharing, with the following research questions: What meanings do PWSC attribute to crack-smoking equipment sharing? Do PWSC perceive risks and, if they do, what are those risks and what circumstances surround those risks? How do these individuals make sense of risks and manage them on a day-to-day basis?

Sampling and data collection

Participants in the qualitative study were recruited from the prospective cohort study of the COSMO project. The cohort study methodology was described in detail elsewhere (Roy et al., 2015) but briefly, the recruitment criteria for the cohort participants were being 14 years and older, having injected cocaine or smoked crack in the last month, speaking French or English, and being able to provide free, informed consent. Cohort participants were recruited mainly in low-threshold community-based programmes located in downtown Montréal, including homeless day programmes, shelters, and needle exchange programmes. Participants were invited to take part in the qualitative project; if interested, they were referred to one of the two study interviewers (one of whom is third author), who then explained the study objectives and the research process.

Recruitment of the qualitative sample was completed with selective sampling strategies (Schatzman & Strauss 1973), based on the criteria for sample diversification chosen and in line with the research questions: frequency and type of drug use-related risk behaviours such as crack smoking equipment sharing, injection equipment sharing and bingeing, which implies the use of large quantities of cocaine until the person runs out or is physically unable to use any more (Harzke, Williams & Bowen, 2009).

Data collection was carried out between April 2012 and July 2014. Semi-structured interviews, conducted with 32 participants, were held mostly in the community-based

harm reduction facilities collaborating with the COSMO project, though some interviews took place in the research office located in downtown Montréal. Once the consent form was signed, the interview started with the participant being asked to recollect major life events as well as changes in her or his drug and alcohol intake during the preceding 12 months. Recollection was facilitated by a memory tool adapted from the "life history calendar" technique (Caspi et al., 1996). Interviews were guided by the main research questions and therefore focussed on trajectories of drug use, health, and HIV risk behaviours such as intensive drug use and drug equipment sharing. Different topics were systematically addressed, including living conditions; types, modes and intensity of substance use; situations involving high-risk practices; health and psychological difficulties; and experiences with health and social services and other community services. Interviews lasted 30 to 60 minutes and participants were compensated Can\$20 for their time. Ethical approval of the research protocol was provided by the Comité d'éthique de la recherche en santé chez l'humain du Centre Hospitalier Universitaire de Sherbrooke and Université de Sherbrooke.

Data analysis

All interviews were recorded and transcribed. Details that could be used to identify participants were carefully removed, and a pseudonym was assigned to each participant. Using NVivo 9.0, a thematic analysis of all 32 interview transcriptions was performed, as described by Miles, Huberman & Saldana (2014). The aim of the analysis was to identify recurring pertinent themes, group them into categories, and identify points of convergence and divergence in participants' discourses. A mixed—deductive and inductive—coding grid was constructed based on an initial predefined interview grid and themes emerging from the interviews (Miles & Huberman, 2003). The inductive code list was developed from listening to the audio recordings, and reading and re-reading interview transcripts. In-depth analyses were performed, focussing on themes related to the main initial research question and their relationships: substance use patterns, experience of mental health problems and drug use risk behaviours (sharing injection equipment, sharing inhalation equipment, bingeing), and the related social contexts.

As part of the analysis process, we used field notes, interview syntheses and reflexive memos to identify patterns and further coding. The research team also met regularly to discuss analyses and thematic categories.

Results

Sample characteristics

The current paper focuses on the 26 participants who shared their crack smoking experiences during the qualitative interviews. Participants who were excluded were not smoking crack; rather, they were injecting drugs. The sample of 26 participants—20 men and 6 women—were between 27 and 55 years old. Median age was 46, with an interquartile range of 35.75–49.25. Most participants were Caucasian (23), one was Aboriginal, one was from the Caribbean and one was Asian. They were predominantly

polydrug users, and many also used other drugs and injected opioids and/or powder cocaine. At time of interview, 4 participants were on opioid substitution treatment. Most participants were former or current PWID at time of interview and only 7 had never injected drugs. Injection was the preferred method of cocaine use for 17 participants, whereas 9 favoured inhalation. Of the 26 participants, 13 reported HCV antibody status, meaning that they either were HCV infected or had been infected by HCV in the past, but had cleared the virus; 5 stated they were living with HIV, including 4 with histories of HCV co-infection.

At time of interview, many participants were in situations of housing instability, that is, experiencing recurring episodes of homelessness or living in precarious, poor-quality housing. Most participants were on social assistance and a few had paid seasonal or casual jobs. Many had had problems with the law.

Dynamics of sharing or not sharing inhalation equipment

Regular and occasional users

Over half the participants reported consuming crack regularly and intensively—either daily or binge use—especially when they received an inflow of money (e.g. paycheque or welfare cheque). Some participants had started using when they were already in very marginalised situations, while others had seen their situations deteriorate with drug use. For some, all their income and personal belongings had gone toward crack use, to the point where they were homeless, living from illegal activities, and cut off from family and friends.

Although many of the regular crack users also injected drugs, some had transitioned from injection to inhalation, often for health reasons or simply because they had had enough of injecting. Their reasons varied and included wanting to keep undetectable HIV viral loads and not wanting to compromise their immune systems; some participants believed injection was more harmful to their health than inhalation. Other reasons given were wanting to avoid overdoses, paranoia and psychosis; or wanting to avoid problems with the police. These are all risks they considered to be higher with injection than with inhalation.

Eleven participants used crack only rarely, especially when it was offered to them, even though their social marginalization, polydrug use and intensity of drug use profiles were similar to those of regular users. Most said they did not like the buzz they got from crack, were '*not a big fan of crack*', that it '*tastes like mothballs*', that '*you don't get high*', or that '*it burns your lips for nothing, burns your lungs for nothing but you expect to get high!*' Some participants said they smoked crack when that was the only thing available, which occurred mainly in some neighbourhoods where cocaine powder was hard to find. Those who preferred to inject cocaine powder or opioids (heroin or prescription opioids) resigned themselves to buying crack, which they injected when they could by diluting it with either lemon or vinegar.

Often, it even happened that instead of ... when I had crack, instead of like smoking it, what I would do, is that I would wash it with vinegar ... [...] I liked that better than smoking it. (Marco, 47-year-old man)

Availability of inhalation equipment

All participants were aware they could get safer crack-smoking equipment from community services in downtown Montréal, in smoke shops, or through outreach workers or peer helpers who hand out kits on the streets. However, some participants, especially occasional smokers, criticized the lack of immediate access at all times to safer crack-smoking equipment, especially in sites outside the downtown area. The opening hours of community-based programmes handing out safer crack-smoking equipment, as well as the random and compulsive nature of participants' drug use also complicated matters meant that the necessary equipment was not always available when needed.

I didn't have any and I didn't feel like running around to go buy some. Because it's not sold everywhere. Y'know, it's... (Pierre, 50-year-old man)

However, for participants who regularly smoked crack, access to equipment was reportedly less of an issue because they said it was easy to find.

There's lots of people who go around with backpacks [meaning outreach workers] Because even though I was on the streets, I still took care of myself, y'know. And the equipment, you can get it anytime. So... (Alex, 36-year-old man)

Individuals who did not wish to have equipment with them, either to avoid the temptation to use or because they preferred getting new equipment every day, saw its availability as an advantage. It is interesting to note that four participants mentioned preferring to make their own inhalation equipment, because the pipes (glass tubes) provided did not suit them. For instance, they fabricated makeshift crack pipes out of aluminium cans or material bought in hardware stores.

I make them from just about anything, but especially cans. Then I smoke.[...] I make holes in it, I put ash in it and the rock [crack] on top, and I smoke it. When you smoke with a pipe... the heat from the lighter burns your throat. The tubes... well I break them every day, and then it takes time to go get more. (Claude, 51-year-old man)

Participants also reported using other people's pipes despite having relatively easy access to equipment. Indeed, some participants did not want to be identified as drug addicts in services that hand out safer crack-smoking equipment or have other people think of them as such (e.g. passers-by, police officers, and friends). Some also felt ashamed when they relapsed and, concerned with maintaining a higher self-image, sought to hide their drug use.

Being offered or asked for a toke: the logic of 'gifting'

Participants spoke about the pervasiveness of crack 'gifting'. While several scenarios existed—ranging from spontaneous to altruistic gifts, on demand, or to please another as

in the case of prostitution—crack gifting very often involved sharing equipment usually a pipe that had already been prepared.

I was with a friend at (park C) and he had crack. He said, 'Would you like some?' He gave me his tube and I took two or three tokes. But that's all. It might have happened one other time. (Daniel, 29-year-old man)

For instance, regular smokers, including Didier (27-year-old man), mentioned giving away tokes out of compassion for those who were poor and suffering from withdrawal. Also, occasional smokers would seize the opportunity to have a few puffs of crack when offered, mostly using another person's pipe.

[...] I never have a pipe with me. I'm not a user, so I've ... I've used other people's pipes to smoke. (Marco, 47-year-old man)

Harold, a sex worker, said he was often offered tokes of crack by clients who enjoyed sexual intercourse under the influence of the drug.

[...] I use my own syringe, because ... 'cause I'm paranoid. But... smoking crack, I'm less paranoid. So I can use it. Someone offers, I'll stay at their place... Because I did prostitution for 25 years. So, often clients, they offer... Often, it's their own thing, have a puff, then have sex with a guy. (Harold, 45-year-old man)

[Insert Table 1 about here]

Although crack sharing and equipment sharing seem closely interwoven and inseparable, sometimes participants reported borrowing only the equipment. For instance, Didier did not hesitate to borrow other people's pipes when his own became unusable.

Sometimes, mine [pipe] would break or wasn't very good. So I'd say, 'Lend me yours'. (Didier, 27-year-old man)

The pressure to share equipment was high amongst persons who smoke crack and some participants said they sometimes gave in, even though they had no wish to do so.

[...] I'm not the type to share. In any case, I'm not the type to ask. I always have my own things. But others, 'Give it to me! Give it to me! Give it to me!' It bugs me. But I lend it, you know. It's not easy to say no. If you say no, they just insist. 'Give me your pipe. Give me your pipe'. (Aïcha, 49-year-old woman)

Participants who were regular crack smokers asserted were often asked to lend their pipes: *'They're the ones, the others who don't have any equipment'*. Luc, a 53-year-old man, who usually injected, said he always smoked with other people's pipe while providing the 'rock' (crack). He stated that those people take advantage of the situation to

smoke more than he does: *'Him, he can't wait for me to give it back to him, because there's lots there. [...]'*.

Some participants who mostly injected their drugs but opportunistically smoked crack mentioned that, even though they always had their injection equipment on them, they never or rarely had a crack pipe. Alain never hesitated to ask for someone else's pipe when he felt like smoking.

On the market, I would often only find ... We call it hard stuff, crack, or whatever uh... Carrying vinegar or lemon around, especially vinegar, and this and that, well..., 'Do you have a pipe? Give me your pipe, I feel like having a toke, see'. (Alain, 48-year-old man)

Sharing for economic reasons

Crack resin is highly valued by some PWSC because when smoked, it produces a high without having to spend any money; this results in used equipment being passed around, which, in turn, promotes sharing. As Jordan (33-year-old man) said, some people lend their pipes so they can recover the resin, which they then use: *'(...) Even if I have a pipe, often they want to keep the resin, so they want me to smoke with their pipe so they can keep the resin'*. Jean came upon his roommate who without his consent was trying to remove the resin-coated filter from Jean's pipe. According to Pierre, pipes were sold for Can\$5 to \$20 for the residue. Some participants stated that when they first started using, they were unaware of the value of resin and were tricked into lending their pipes to people who wanted to smoke the resin. After being introduced to crack on the streets of Montréal, Pierre quickly learnt that by getting a pipe, he could accumulate a lot of crack resin.

And also the fact that more people get their own pipes. Now I get it: It's because they keep accumulating the resin from the crack so they can smoke it later. So I'm no dumber than anyone else... I did the same thing too. (Pierre, 50-year-old man)

Pierre then acquired his own pipe, not to avoid sharing, but mostly to accumulate crack resin.

Using alone or with other persons who smoke crack

Some participants said that they usually used crack alone by choice. This sheltered them from other people, in case they experienced crack-induced paranoia. However, most participants who were regular or occasional users said they used crack while in the presence of other people, for example, in a crack gallery (place where crack is bought and smoked), at home or with friends.

According to our participants, smoking crack as a social activity occurred more often when they first started using. For example, Didier thought that he had to use with others to be accepted. Aïcha was often ‘invited’ when she first started smoking crack, which was no longer the case after she became a regular user.

Yes. Friends who were using, they would call me, come and see me: ‘I have money... Come over. I’m inviting you’. [...] At first, it was [social], but over time, after a few years, it’s not social anymore. (Aïcha, 49-year-old woman)

Similarly, occasional use often led to sharing equipment. For instance, Harold, an occasional smoker who claimed that he always injected alone, would not hesitate to smoke with his prostitution clients (see above).

Being under the influence and having an altered perception

Participants said they had used other people’s pipes when they were intoxicated, such as when their pipe had broken while they were using. Pressed with the urgent need to continue using, and already under the effects of crack, there was no question of going without. Some participants stated that the loss of judgement and lack of concern they feel when under the influence had led them to share their smoking equipment.

I don't give a damn about that. I don't give a damn. When I use, my reasoning is all off: it's a pipe, I can smoke it, give it to me [...] I want to get high. I don't give a fuck about anything when I use. I'm not there anymore. There's a period of time when somewhere in my mind, I lose all reason, all logic. (Claude, 51-year-old man)

Personal risk assessment and prevention strategies

Risk assessment

The perceived risks of infection linked to sharing crack-smoking equipment varied from one participant to another. Marie, probably an extreme case, exhibited intense germ phobia; for her, sharing smoking equipment was repulsive, and consequently, she kept her equipment in very good condition. Despite the fact that she used daily and often in a group, she firmly refused to share her pipe.

When I got there, everyone saw me: ‘Hey!’ That’s it. I had my pipe, my alcohol swab, and my little screens on the side. That’s it. Those are my things. I didn’t lend my stuff to anyone. It’s like a brush: you don’t lend your hairbrush. Do you share your toothbrush? No. That’s it. It doesn’t happen. (Marie, 39-year-old woman)

At the other end of the spectrum, others expressed scepticism about the risks of infection. For Claude, illness was a question of attitude. It should be noted that while he presented himself as invincible, he was infected with HCV and had advanced-stage cancer.

I dunno. I believe... I believe in health. I don't give a damn about that. Someone has the flu? 'Oh, don't give me the flu!' I don't care. I'll shake your hand, give you a hug, I don't care. I'm not gonna catch it. That's it. I believe in health. I have to get rid of it, it's gonna go. (Claude, 51-year-old man)

To avoid getting infected, some participants, several of whom have neither HIV nor HCV, said they had shunned situations where they could have shared.

I haven't shared for a long time now. [...] I have so many friends who are ...who are HIV-positive or have hepatitis C that ... they're gonna die soon... I don't want that to happen to me. (Marco, 47-year-old man)

However, among participants who were already infected with HIV, HCV or both, many were sharing crack pipes, a practice they mostly perceived as not very risky. Some were protecting themselves very little, overall. That was the case for Luc, coinfecting with HIV and HCV, and recently released from a long stint in prison. He was sharing both syringes and crack pipes, *'Because for myself, I didn't care. I just wanted a buzz. The disease doesn't matter. I already have it. You don't die right away, in any case'.* (Luc, 53-year-old man)

Many participants took the perspective that the risks of infection associated with sharing crack-smoking equipment were minimal when compared to much greater risks often perceived with sharing injection equipment: *'I think... It's not hugely risky, but it's risky. You know?'* said Marco. Pierre, a 50-year-old man, said, *'A fix, you can't minimize that: it's the same... it's the blood. I said to myself, "Woah". I knew, you know, in a sense, let's say the guy shoots up. [...] I would never have shared a needle'.*

These participants expressed some ambivalence and disbelief as they had difficulty understanding how they could contract HIV or HCV when no blood or lesions were visible (e.g. cold sore). Many certainly considered the risks to be minimal: *'Well, I tell myself, it's a pipe, and it goes from mouth to mouth. I don't see that there is a risk there, aside from catching a cold [...]'* (Aïcha, 49-year-old woman)

Jean thought that the heat of the pipe would kill the virus.

Crack pipes get so hot [...] Yeah, it seems that... that there's risks, but they get really really hot, so I don't know too many viruses that are resistant to heat. Maybe... But I don't know. (Jean, 35-year-old man)

Prevention strategies

According to study participants, using a rubber mouthpiece (provided in the safer crack-smoking kits) to reduce the risks of infection was practice common amongst PWSC. As Pierre said, alluding to the mouthpiece, *'they all have plastic tubes that they slip on*

top'. Visible blood or lesions on the mouth were perceived as presenting a higher danger than saliva, and motivated many to avoid sharing or to protect themselves by using a plastic mouthpiece that the participants also called 'tubes': *'Y'know, I dunno. It seems that you can see it, a sore on the lip, and anyway, when all the pipes are broken, we have the plastic tube on top. (...)'* (Julie, 31-year-old woman)

Sharing a crack pipe with people they know well and trust—someone with whom they often use, such as a spouse or a regular drug using friend—was reported as another way of protecting themselves. If they had to share a crack pipe with strangers, some participants reported they would ask if they had HIV or HCV, or had engaged in risky behaviours. This is the case for Julie, who stated she protected herself all the time with her spouse who was living with HIV, but would decide whether or not to use someone else's pipe after asking if the person has hepatitis (serosorting for crack use, as it were).

But that's it, it's like... I don't know, it's like if I trust people. Y'know, someone tells me, 'Uhh I don't have hepatitis,' and I'm like, 'Ok. You don't have hepatitis...' and I'll take his pipe. But I have to say also that I also use with people I've known for a really long time, and it's like, I'd know if they were infected. That's what I tell myself, even if I shouldn't say that to myself, but that's it. So... (Julie, 31-year-old woman)

Despite this ambivalence due to uncertainties about clear risks linked to crack equipment sharing, participants' views suggested that most of them had adapted their drug using practices based on prevention messages they had received from peers or outreach workers. Many participants, especially regular smokers, demonstrated a sense of personal agency and resourcefulness when it came to avoiding sharing. Most said they had adopted various strategies, such as always having their own pipe with them, keeping extra pipes for other smokers, giving away their own pipe rather than sharing it, burning the tip of their pipe to differentiate it from others' so they would not use the wrong one, or putting together a makeshift one, which is what Alex described doing because he avoided sharing at all times.

Uhh, at that time, I'd get myself organized. I'd smoke with a can or, y'know. I'd get organized. In any case, I always use alone, so... I don't use with anybody! (Alex, 36-year-old man)

Those individuals were taking care of themselves and expressed a positive attitude toward life, like Marco (47-year-old man): *'You can never give up. Never, never, never. You gotta keep going'*. According to Émile, (49-year-old man), he had to assert himself when people asked to borrow his pipe: *'Before, I used to say yeah, but now, no. It's not supposed to be shared, you know, and... People respect me for that. I never share my equipment anymore'*. For her part, Marie (39-year-old woman) maintained that, *'You don't lend a pipe'*.

Participants had many strategies to resist the peer pressure to share. Vincent had developed the habit of keeping extra pipes at home so he could give them away. As for

Émile (49-year-old man), he chose to give away his own pipe rather than share it: ‘[...] if I get hassled too much, I give my own pipe. That’s that. “Keep it. I don’t want it back.”’ Others expressed less self-control, like Claude, who said he felt like ‘a boat without a rudder’; or Julie, who stated,

It’s like if I let myself be manipulated. I dunno. I’m really too soft, so, you know. Yeah, I never control what goes on. That’s clear. Never. (Julie, 31-year-old woman)

In fact, participants who reported sharing more frequently and protecting themselves very little were more resigned and fatalistic about life in general. Some who claimed they were not afraid of dying took fewer precautions.

Some people say, ‘I’m afraid of death’. But me, no. Not scared of death. I don’t run after it, but I’m ready anyway. (Harold, 45-year-old man)

Others, who expressed suicidal ideation or said they did not care if they lived or not, were less concerned about sharing, as were those who felt they had little control over their environment. And so, many participants conceded that they gave in easily when under pressure to share their pipes. For persons with more fatalistic perspectives, the risks associated with pipe-sharing did not necessarily carry much weight, considering that their drug use also meant flirting with death on a daily basis. Aïcha stated that she could not say no to PWSC who asked her for her pipe. Not without contradiction, Aïcha acknowledged the risks, but also said she was more concerned with her excessive drug intake and the risk of dying from an overdose.

Hmmm. It’s yet another way of putting my life in danger. [...] things, actions that are risky. Using drugs, that death can take me that way. So... You never know when it’ll come up, that... someone that... that has it, that I lend my pipe to, that it could be me, that I catch something. It can happen anytime. Yeah. (Aïcha, 49-year-old woman)

Discussion

Our study is one of the few qualitative studies looking at the experience of sharing crack-smoking equipment in a context where safer crack-smoking equipment is available. As in other studies, many participants stated that provision of crack-smoking material enabled safer behaviours (Leonard et al., 2008, Ti et al., 2012). However, some participants in our study were critical of the quality of the safer crack-smoking equipment and preferred making their own pipes for reasons of convenience and effectiveness. Some authors have also observed preferences for homemade equipment, including filters made of Brillo® steel wool pads; the latter are preferred to bronze screens, which do not collect resin (Boyd et al., 2007) and are more difficult to insert into pipes (Malchy, Bungay, Johnson, & Buxton, 2011). Those results stress the importance of documenting difficulties PWSC encounter with the distributed equipment in order to ensure that the crack-smoking material is adapted as closely as possible to PWSC needs and use is maximised.

Nonetheless, and like those of other Canadian studies, our results suggest that many participants commonly share equipment, especially pipes, despite public health initiatives designed to provide safer crack-smoking equipment. Several individual and social elements interact to foster sharing. The physiological effects of the substance also play a role.

Drug use profile is clearly a factor associated with sharing smoking equipment that varies depending on whether or not the person is a regular, experienced user. Individuals who are just beginning to smoke crack are often offered pipes in contexts where they had not planned to smoke, are not familiar with services that distribute kits, or just willingly accept the token or resin offered. Persons who smoke crack regularly are especially vulnerable when they have cravings and engage in moments of compulsive, frenzied use. At the core of the drug use continuum—from new to long-time regular users—are persons who occasionally smoke crack, whose profile is distinct. In our study, occasional crack users were most often persons who regularly inject cocaine. Those participants turn to crack in the absence of cocaine, which explains why they do not necessarily have the smoking equipment needed whenever the opportunity to smoke arises. It is also important to note that the participants were recruited in Montréal community services attended mostly by persons who predominantly inject rather than inhale cocaine (Leclerc et al., 2015). Although some service users also smoked crack, for a large number the main mode of consumption was injection (Roy et al. 2012; Roy et al., 2013b). Some even injected crack when they could not get powder cocaine (Roy et al., 2012; Roy et al., 2013b). Other studies have reported associations between drug use profile and sharing smoking equipment, particularly the compulsion to use immediately (Boyd et al., 2008; Handlowsky et al., 2013; McNeil et al., 2015; Ti et al., 2012) and intensely (Cheng et al., 2015). However, these impulses only partly explain sharing behaviours; other factors are involved, including interpersonal and microsocial dynamics among PWSC.

Our study highlights the issue of equipment sharing linked to crack gifting. Indeed, PWSC in our study were at times opportunistic users who would smoke a pipeful from someone else's pipe (the crack or resin already in the other person's pipe). In this case, it is drug sharing that leads to sharing equipment, similar to extensively reported occurrences among injectors (Bourgois, 1998). We use the term 'gift' because no participant stated having bought crack with other people that resulted in their sharing the same equipment. However, a drug gift may be an altruistic act or not, and the reasons are often financial. Other researchers have identified the wish to accumulate resin as a determinant of sharing smoking equipment (Boyd et al., 2008; Ivsins et al., 2011; McNeil et al., 2015). Moreover, as we have previously described in our early work with street-based persons who use drugs in Montréal, offering one's drugs (even drug residue) appears to be common practice within this population (Roy, Arruda, & Bourgois, 2011); it is part of a moral economy of 'gift-giving' where giving or exchanging equipment, particularly in a resource-poor context, builds and solidifies relationships of trust among street-based persons who use drugs that facilitate survival on the streets (Bourgois, 1998; McKeganey, Friedman, and Mesquita, 1998).

Our results demonstrate that most participants considered the risk of acquiring HIV or HCV through sharing smoking equipment to be generally low or even non-existent. Although there can be indifference, as described by Ivsins et al. (2011) and Boyd et al. (2008), most participants were unsure about the level of risk, generally comparing it to the risks of injection paraphernalia sharing or to other dangers experienced daily, like overdosing or having a paranoid episode. Those who were indifferent were often already very sick (e.g. cancer) or had contracted HCV or HIV, and considered they did not have much to lose. The latter seemingly shared equipment without worry of transmitting their infection to others.

Participants talked very little about the links between the state of their mental health and sharing smoking equipment. This may be because they considered the risk of HIV or HCV transmission to be low when sharing smoking equipment. These results are consistent with those in the quantitative study we conducted as part of the COSMO research project. In that study, analyses showed that severe psychological distress increased the odds of needle sharing but not of crack pipe sharing (Lévesque et al., 2014). However, participants' discourse suggested that in some cases, anxiety or desperation can influence sharing behaviours. The relatively exceptional case of Marie, who had behaviours that appeared compulsive (she wore gloves when shopping for groceries), suggests that in some cases, anxiety can promote safer smoking practices. Conversely, a feeling that there is nothing left to lose and the end is near can cause some PWSC to take risks, as is the case for Claude, who had metastatic cancer. Therefore, considering the moral economy of paraphernalia and drug sharing amongst persons who use drugs, HIV and HCV treatment should be offered as part of a comprehensive strategy designed to prevent transmission by reducing population-level viral load of HIV and prevalence of HCV-infected persons amongst persons who smoke crack and likely to transmit these viruses.

Again, this study highlights the social nature of drug use, since PWSC are social beings perpetually interacting with their environments. Although these situations are not always prime for socializing—especially in crack galleries, where people sometimes use alone—they certainly foster contacts among PWSC, increasing the risks of sharing. The social pressure to share associated with frequent requests from people who have no equipment (or drugs), as well as intimate relationships and partying are other experiences participants have had that can lead to more occasions to share. In such contexts, avoiding sharing is not obvious, especially for people who are sceptical about the risks. Some of our study participants stated they had trouble resisting the pressure to share their equipment. In this regard, some authors question the usefulness of prevention messages they describe as 'hypersanitary' and that, from their point of view, do not take into account the characteristics of persons who smoke crack and contexts of extensive social marginalization and poverty (Ivsins, et al., 2011).

This being said, our results show that most participants were somewhat concerned about sharing, although their comments were marked with ambivalence and doubt about the need to protect themselves. Even without being totally convinced of the risks, participants used various strategies to reduce risks, including always having a pipe with them, firmly

refusing to share, assessing the risks on a case-by-case basis according to the presence of visible lesions or blood, or asking the person if he or she has HIV or HCV. As in other studies (Boyd et al., 2008; Handlovsky et al., 2013; Ti et al., 2012), many participants reported using a rubber mouthpiece when smoking crack with someone else's pipe.

Our results are in line with those of Meylakhs et al. (2015), who also found that for PWID, personal agency and 'keeping it together' fostered proactive harm reduction practices. Similar to Gowan, Whetstone & Andic's (2012) study of PWID, some of our study participants clearly demonstrated personal agency and feeling empowered in response to public health messages, and voiced a desire to improve their health or remain healthy. Conversely, a fatalistic attitude and low personal agency could be related to perceived inabilities to deal with life's hardships (Bolam, Hodgetts, Chamberlain, Murphy, & Gleeson, 2003) or even to levels of desperation among persons who use drugs (Meylakhs, Friedman, Mateu-Gelabert, Sandoval, & Meylakhs, 2015). Considering these perspectives, prevention programmes should focus on tailoring agency-based strategies to foster safer crack use practices (Wechsberg et al., 2004), since it has been demonstrated that persons who use drugs are concerned with taking care of their health and of themselves (Drumm et al., 2003; Duterte et al., 2001; Gowan et al., 2012). One recognized method is peer involvement in harm reduction programmes (Marshall, Dechman, Minichiello, Alcock, & Harris, 2015; Mateu-Gelabert, al., 2014; Weeks et al., 2009) that train drug users as advocates. In addition to breaking isolation, peer-based projects encourage knowledge sharing among PWSC and enhance evaluations of prevention strategies, fostering acceptability of projects such as safer crack-smoking equipment distribution (Domanico & Malta, 2012).

Finally, it is important to remember that harm reduction, which includes policies to provide safer crack-smoking equipment in Canada, is a holistic approach designed to create favourable environments and contexts that enable persons who use drugs to take care of themselves (Fischer, Murphy, Rudzinski, & MacPherson, 2016). Therefore, preventive actions must target not only factors of individual vulnerability, including poor agency and lack of knowledge, but also adverse structural and social factors such as stigmatization and repressive policies aimed at persons who use drugs. This means broadening the scope of harm reduction interventions beyond individual behaviours, although the latter are necessary, as well as including other forms of protection and support such as the creation of social connections, access to housing, food safety, employment, health services and social services (Bourgois, 1998; Gillet & Brochu, 2005; Gowan et al., 2012; Rhodes 2009). These measures are especially relevant in regard to Canadians who smoke crack, who are known for their extreme marginalization and frequent crack use-related health problems (Fischer et al., 2006; Fischer et al., 2016).

Some strengths and limitations of our study merit consideration. Our data collection method was based on self-reports, which may have introduced both recall and social desirability biases. We believe that the impact of such biases was limited by our use of the calendar technique and the interviewers' open, nonjudgmental attitudes. The advantage of a qualitative method resides in its capacity to delve deeper into certain dimensions that can influence a phenomenon, though it does not allow for in-depth analysis of all possible aspects. Although the participation of PWSC with various profiles

and pathways enabled us to collect very compelling data, it is impossible to claim the data is exhaustive. Further studies on experiences and rationales behind equipment sharing and on risk reduction practices should be conducted with other groups such as individuals with immigrant backgrounds, men and women who engage in prostitution, young people, people who do not use community services and people who are better socially integrated.

Conclusion

Our results suggest that sharing experiences occur within a context of loss of control in combination with the effects of drugs, as well as within the structural and interpersonal contexts of a street-based moral economy where lending equipment takes the meaning of gift. Sharing behaviours are also related to the personal characteristics of PWSC, for example, whether they demonstrate a sense of personal agency or of fatalism when evaluating risks associated with sharing. Although many participants had adopted proactive practices, they perceived the risks linked to sharing to be very low and negligible, a perspective often voiced by individuals who already had HIV or HCV. Participants were more concerned with other risks, such as social stigmatisation, public paranoia, overdosing, and risks associated with sharing injection equipment.

To reinforce harm reduction for persons who smoke crack, interventions aimed at reducing barriers to safer smoking practices should be developed at both structural and individual levels. Given the extensive social marginalisation of a number of our participants, it is essential to act on the major health determinants. Policies for distributing safer crack-smoking kits need to integrate the main harm reduction objectives for persons who smoke crack, that is, fostering access to health care and psychosocial support, as well as social integration and safety.

Conflict of interest statement

The authors report no conflicts of interest.

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Table 1. Sharing dynamics, based on two predominant crack use profiles

<i>Dynamics and logic of sharing crack smoking equipment</i>	
<p><i>Occasional smokers</i></p> <p>Drug of choice: powder cocaine or opioids Often cocaine or opioid injectors, with some preferring to sniff cocaine</p> <ul style="list-style-type: none"> • Usually do not possess a pipe (circumstances and places) • Are offered a toke and accept it (receiving a gift) • Will ask for tokes of crack when opportunity arises, often in the absence of their drug of choice • Will buy crack and smoke it in someone else's pipe 	<p><i>Regular smokers</i></p> <p>Drug of choice: usually crack Some have switched from injection to inhalation Others inject as well as inhale</p> <ul style="list-style-type: none"> • Usually possess a pipe and most often have one with them • Offer tokes to others (logic of 'gifting') • Are asked for tokes • Are interested in sharing their pipes to collect the crack resin • Will ask for someone's pipe when their pipe breaks and want to avoid going out to get a new one